Abstract: A compensating drug delivery system for delivery of medicaments to animals is described. A drug-containing reservoir is connected to a needle array through a flow tube. Medicament delivery to the animal through this flow tube is regulated by the combined action of a metering means and a valving means, and inaccuracies in delivery rate are compensated. The metering means and the valving means are microprocessor controlled to insure that the medication administered is according to a pre-established protocol.